

THE MANAGEMENT MODEL FOR SMALL AND MEDIUM-SIZED MINING COMPANIES IN THE EPIDEMIC ERA: A CASE STUDY OF COMPANY W*

Piyun Luo, Shuchen Yang

International Chinese College, Master of Business Administration,
Rangsit University, Pathum Thani, Thailand
E-mail:1556824734@qq.com

Abstract

China is rich in mineral resources, but its per capita possession is small. Therefore, most of the mine resources depend on imports. However, due to the impact of the COVID-19, ore imports have been hindered, and managers engaged in small and medium-sized mining enterprises still have a low level of education, lacking professional system management knowledge and managing companies based on their experience. Therefore, this paper aimed to investigate the operation of Company W, a Chinese mining company, and analyze its comprehensive management to provide a new reference for the management analysis for similar small and medium-sized companies. Data were obtained through in-depth interviews following Maslow's hierarchy of needs theory and the Employee Boston Model, and the informants were selected through stratified sampling. Data were analyzed based on the lean management theory and the six sigma management theory.

According to the result, Company W the enterprise's staff enthusiasm is poor, the management level is chaotic, shareholders communication mode is single. In view of the above problems, the new management mode needs to improve the enthusiasm of employees, rebuild the management structure, increase communication channels and so on. The study of this paper provides a new reference for the similar management analysis of small and medium-sized enterprises and provides new ideas for the management of small and medium-sized mining enterprises.

Keywords: small and medium-sized enterprises mining; lean management; management mode

Introduction

Although there are many mineral resources in my country, the per capita holdings are very small. The longitude and latitude span of my country's land plates not only has a variety of climate types, but also creates a variety of geological environments. This is what makes our country's mineral resources form its own characteristics. There are few large ore deposits and more small and medium-sized ore deposits, and the distribution of ore points and mineralization points is scattered. Because my country is located at the junction of plates, there are usually some sporadic small ore bodies around large mines. The existence of these small ore bodies provides a resource foundation for the development of small and medium-sized mining enterprises in my country. Due to the existence and development of small mining enterprises, these small-scale, complex, large-varied, and scattered small-scale mineral resources can be fully exploited and utilized. The characteristics and resource benefits of my country's mineral resources can be brought into full play.

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With the rapid development of my country's economic construction, the pressure on the demand for mineral products has increased, and it is difficult to meet the supply of large and medium-sized mining enterprises, both in terms of total amount and in terms of mineral product categories. Although China has a vast land and abundant resources, due to the characteristics of the distribution of mineral resources in my country, centralized mining cannot be carried out. At the same time, mining enterprises also have great problems. From the product point of view, the ore grades are uneven. Although the land area is large, the ore reserves are not high. From the management point of view, most of the staff engaged in mining management do not have a systematic Management knowledge, management is relatively backward.

Objectives

This research is aimed at the research on the management mode of small and medium-sized mining enterprises. Through in-depth research on W mining enterprises, the problems and hidden dangers existing in the management mode are identified and analyzed. The purpose of improving a more effective management model for enterprises does not provide a reference for similar enterprise management.

Material and Method

1. Literature review

Judging from the literature and various materials consulted, the research and analysis of mining enterprises pay more attention to investment return, internal and external risks, environmental protection and safety, etc., while the research on lean management of mining enterprises is very little. On the one hand, mining enterprises themselves do not pay much attention to the management of personnel as in the service industry, and on the other hand, mining personnel do not have much systematic learning experience about management, so the research on mining enterprise management is still a blue ocean. Many aspects are worth studying and learning, and enterprises have room for improvement.

2. Research hypothesis

The research in this paper is based on Maslow's Hierarchy of Needs theory, which is a theory of motivation in psychology, as the basis for the purpose of the interview, and includes a five-level model of human needs, usually depicted as a hierarchy within a pyramid. From the bottom of the hierarchy up, the needs are: physiological (food and clothing), safety (job security), social needs (friendship), esteem, and self-actualization. This five-stage model can be divided into deficit needs and growth needs. The first four levels are commonly referred to as deficit requirements (D requirements), while the highest level is referred to as growth requirements (B requirements).

To sort out the real management model of W mining enterprises, it is necessary to contact employees at all levels, and understand the real demands of employees at all levels through interviews and on-the-spot research, as well as the level of demand levels, so as to provide data information for later analysis of enterprise management and management models.

Through the analysis of the Boston model, employees can be divided into four quadrants: stars, both capable and enthusiastic; Lynx, capable but not enthusiastic; Taurus, enthusiastic but not competent; thin dogs, neither competence nor enthusiasm. The first type is to give full authorization, encourage timely, and focus on training; the second type, moderate authorization, encourage more, and talk more; the third type, do not authorize, carry out timely

training, put more burdens on it, and let it grow as soon as possible; 4 types, resolutely do not authorize, let them do simple work, and train them in a timely manner.

Through the Boston model classification of employees, different incentive schemes are adopted for different employees, and the work ability and work enthusiasm of employees can be improved by teaching students according to their aptitude, and the information basis for analyzing the problems existing in the later analysis of the enterprise management model and improving measures are provided.

Results and Discussion

1. Descriptive statistical

Because the scale of W mining enterprises is not large, the factory has 93 fixed employees, which is also the scale of most mining companies, and the mineral processing technology and profitability of W mining enterprises belong to the middle and upper level in the industry, and it has research value in similar industries. Enterprises, this article is researched from the perspective of management mode, so it is necessary to understand the working conditions and real thoughts of people in various positions in the company, including basic employees, middle managers, top managers and shareholders, to accumulate information for the following research. Therefore, the following interview plan was formulated, and the corresponding representatives were selected for interviews according to the number of people at each level.

According to the theoretical support and theoretical basis of the enterprise interview theory in 2.3.3, the purpose of this interview is to obtain real information through face-to-face interviews with members at all levels of the company:

- (1) Whether the workers in each post are clear about the job content and requirements.
- (2) The current real needs of members at all levels and the level of needs they are in
- (3) Divide employees into the Boston employee model through work enthusiasm and work ability, and implement different incentive methods for different employee types.

4.2 Correlation analysis

X Mining Enterprise was established in 2008 and is located in Lanping Bai and Pumi Autonomous County, Nujiang Lisu Autonomous Prefecture, Yunnan Province. It was established by a local businessman Zhang. Due to the impact of the 2018 epidemic, the investor withdrew, and Zhang sought a new partner. W Mining Enterprise was established in 2013 and is located in Dali City, Dali Bai Autonomous Prefecture, Yunnan Province. In early 2019, under the introduction of mutual friends, we got to know each other and reached a cooperation agreement in June 2019. The contract clearly states that Company W leases the concentrator from Company X, and Company W manages it. Among them, the concentrator covers an area of 72 mu, and is equipped with a stockyard, a production workshop, a tail dam warehouse, an inventory warehouse, an office, a conference room, a reception, a company dormitory and a canteen. The lease amount is 5 million per year. In July, W company settled in, and carried out mechanical and technical transformation on the site. The investment in machinery was 4.5

million yuan, and the formal mineral processing began in September.

The lead-zinc mine in Lanping is the lead-zinc mine with the largest proven reserves in my country, the fifth in the world and the first in Asia, but the mines in this area are divided into limestone and sandstone, so the mineral structure is different. Therefore, the methods and processes of each concentrator are also different. According to the on-site inspection, company W has a total of 93 fixed employees in this concentrator at this time, two production lines, and each production line requires two groups of workers to work alternately. The lead-zinc ore is obtained by transporting the mine, which is refined into lead concentrate and zinc concentrate by flotation and then sold to the smelter. Company W's existing technology and equipment can process raw ore containing 8 degrees lead and 12 degrees zinc to 50 grade lead concentrate and 16 grade zinc concentrate, which is at the upper level in the industry.

Although Lanping County is rich in mineral resources, due to the non-compliance of early mining, and the local people mining by themselves and privately in the early days, and it lasted for many years, causing great damage to the ecological environment, after the government began to intervene, standardize mining behavior, improve environmental protection supervision, limit local people's mining, and protect the ecological environment. At the same time, it requires that mining-related enterprises in the area need to hire local labor to solve the local employment problem.

Assumption verification

1. Analysis of grassroots staff interviews

After interviews with basic employees, it can be seen that the basic employees' needs for work are in the primary stage, and they are basically in the safety demand part. Most of the employees are from the local area., the work enthusiasm is poor, and the basic appeal for this job is only "stability", and there are no other appeals. Because of the high-risk and high-return situation of mining enterprises, the ownership of the factory area will change, and when there is a change, it will stop work, but most of the Local workers have no other job opportunities and can only wait for the factory to reopen, and they can only stay at home during this period.

Most of the employees are also in a "skinny dog" state in the employee Boston model. Because of the need to solve the local employment problem, most of the workers hired by the W mining company are from the local area, and the replacement of investors will not make these workers unemployed for a long time. Since then, these workers have not been motivated to work, and their work ability has been kept at a low level. Some of the externally hired skilled workers are in the "Lynx" state and have absolute technical ability, but they have been hired by W mining companies with high salaries after retirement from state-owned enterprises. I don't have a lot of enthusiasm for work, I just do my job normally.

2. Analysis of interviews with middle managers

Through interviews with middle managers, it can be seen that the sources of middle managers are basically arranged by shareholders, some are relatives of shareholders, some are friends of shareholders, and some are followers of shareholders before. In addition to the large financing characteristics of mining enterprises, general project operations will share risks, so there are many shareholders, and these shareholders do not know each other, so some personnel will be arranged to participate in the company's operation, which makes the company's middle managers actually Both belong to the company, but have a work attitude of "each is its own".

In Maslow's Hierarchy of Needs, they are at the medium level of needs. In management, they have emotional needs. They hope to have good friends in the factory area, get along well when they are not working, and have a level of respectful needs. With the development of the company, their needs Levels also change.

It can be seen from the interview that the middle-level managers are not highly educated, have no systematic management knowledge, and do not agree with the knowledge of management, but they are full of enthusiasm for the job and are very responsible for the work. The Boston model is basically in the "Taurus" type

3. Senior management interviews

After learning that Luo is not only a senior manager of the factory, but also a minority shareholder of the company, he has a higher demand level theory in his work and is at the level of respect and self-realization. Because the operation of the factory area is directly related to its own interests, the enthusiasm for work is high, and through long-term work experience, there is no doubt about the work ability, so it is in the "star" position in the employee Boston model.

4. Shareholder Interview Analysis

Through interviews with shareholders, it has been verified that the managers of the plant are indeed appointed by shareholders, and the hiring sources for selecting managers are very single. Shareholders as investors, regardless of the employee Boston model, are also in high-level needs in Maslow's hierarchy of needs, and in the part of self-actualization needs hierarchy. Conclusion

Since the direction of the opening report has been determined, a large number of literatures have been referenced, and various materials have been collected to determine the research direction of the dissertation. However, the real application of lean management is not comprehensive, and there are relatively few literature materials. In addition, the existing literature on mine research is mainly biased. In terms of resource development, environmental pollution and safety, coupled with the "simple and rude" management of mining enterprises, the management staff are basically from the investors' side, and they do not actually have professional management knowledge. There are relatively few studies on the management direction of mining enterprises.

Through the on-site visit to the W mining company, I learned about the real environment of the company, had close contact with all aspects of the factory, participated in some production, understood the real operation of the enterprise, and made production flow charts and worker operations according to the real situation. Situation, company management structure. Through face-to-face interviews with basic employees, middle managers, top management managers and shareholders, we can understand the needs of basic employees, identify problems in management, and put forward relevant suggestions from the perspective of lean management. After my research and investigation, I came to the following conclusions:

(1) After investigation on the company's profitability and interviews with shareholders, it was found that W mining company was in a profitable state. Although the actual profit did not meet expectations, the current status of earnings was relatively optimistic, and W mining company was at an upper-middle level in the industry., which can guarantee investors' returns. W mining enterprises can solve some of the local employment problems, but according to the on-site inspection and interviews with employees, it is not difficult to see that grass-roots employees are less motivated to work. Adjustments were also discussed with shareholders and managers and received their suggestions and positive feedback.

(2) Although the overall operation of W mining enterprises is relatively optimistic, there are many hidden dangers in the management direction after in-depth research. Due to the short business hours of the factory area, there are no major problems at present, but in the sustainable development plan, there are major problems. The possibility of managing a crisis. The dummy management position is a waste to the enterprise. The overlapping of management levels will lead to the shirk of responsibility when problems occur, which will result in missing the best time to solve the problem and cause losses to the enterprise. It is necessary to re-build a clear and reasonable company structure under the guidance of lean management thinking, eliminate unnecessary positions, and have a clear management hierarchy.

(3) It is not difficult to see from the interviews with managers of W mining company that most managers do not have systematic knowledge of professional management, and are skeptical about the management knowledge I mentioned in the interview. Some people think that management knowledge is applicable under ideal conditions, but the actual situation is very complex, management vision is limited to past experience, and the room for improvement is relatively limited. Some managers have limited management vision, making management more confusing. Although no major management accidents have occurred at present, there are management hidden dangers. In response to this situation, managers can be trained in practical management knowledge, and the theoretical knowledge can be viewed correctly and applied.

(4) Due to the particularity of the financing of mining companies, there are multiple shareholders. The investment of these shareholders is not only in this project, but the managers are also from the side of each shareholder. The communication mechanism of shareholders is also limited to telephone and chat. sufficient and incomplete. It is necessary to establish a simple communication mechanism. For example, the financial company will announce the company's operation status in the shareholder group at a fixed time, notify it when there is a problem, and improve the new shareholder communication mechanism after the business expands.

(5) After this period of research, as a profitable enterprise among small and medium-sized mining enterprises in China, W mining enterprises have certain research value, and the existing problems are also common problems of most small and medium-sized mining enterprises. The research framework and corresponding suggestions have some points. reference value.

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